

## REMARKS

### Summary of Office Action

Claims 55-71 are pending in the above-identified patent application.\* Of those, claims 62, 63, 66, 67, 70 and 71 have been withdrawn as being directed to a nonelected species.\*\*

The Examiner has rejected claims 55, 56, 58, 60, 61, 64, 65, 68 and 69 under 35 U.S.C. § 102(b) as being anticipated by Wen et al. U.S. Patent 6,083,802. Claim 57 has been rejected under 35 U.S.C. § 103(a) as being obvious from Wen in view of Bentley U.S. Patent 6,380,608. Claim 57 also has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention.

### Summary of Applicants' Reply

Applicants have amended claims 55 and 57 in order to more particularly define the invention. The Examiner's rejections are respectfully traversed.

### Applicants' Reply to the Rejection Under 35 U.S.C. § 112

Claim 57 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention, because of an

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\* Applicants note that this application was filed with 58 claims and a Preliminary Amendment. It was intended that the Preliminary Amendment cancel claims 2-58, but because of a typographical error, only claims 2-54 were cancelled. As a result, in a Second Preliminary Amendment, claims that should have been numbered 59-82 were presented as claims 55-78, with claims 55-58 presented as being new rather than as being amended. The Patent and Trademark Office has treated claims 55-58 as being properly amended and therefore applicants are taking no further action in connection with the earlier numbering error.

\*\* Applicants understand that if a generic claim is allowed, the nonelected claims may be rejoined to the application.

alleged lack of antecedent basis. This rejection is respectfully traversed.

Applicants have amended claim 57 in order to more particularly define the invention and respectfully submit that claim 57 is fully compliant with 35 U.S.C. § 112.\* Accordingly, applicants respectfully request that the rejection under 35 U.S.C. § 112 be withdrawn.

Applicants' Reply to the  
Prior Art Rejections

Claims 55, 56, 58, 60, 61, 64, 65, 68 and 69 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Wen. Claim 57 has been rejected under 35 U.S.C. § 103(a) as being obvious from Wen in view of Bentley. These rejections are respectfully traversed.

Applicants' invention, as defined by claim 55, as amended, is a semiconductor including a semiconductor substrate with a downwardly extending well therein, and first and second spiral conductors arranged within the well in first and second horizontal planes, electrically isolated from one another but positioned to be inductively coupled during operation. Neither Wen nor Bentley, whether taken alone or in combination, shows or suggests such a structure.

Wen shows the formation in a semiconductor of a single inductor, by forming a trench, forming metal layers of undisclosed shape separated by dielectric layers, and forming openings in the dielectric layers into which conductive plugs are inserted to connect the metal layers. Thus Wen neither shows nor suggests forming, in a semiconductor well, two conductors that are (1) spiral, (2) electrically isolated from one another, and (3) positioned to be inductively coupled during operation (insofar as the disclosed conductors are in a direct conductive relationship).

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\* In view of the purely formal nature of this amendment, correcting a typographical error, applicants respectfully submit that the amendment is not a substantial amendment, or a narrowing amendment, under the doctrine of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 62 USPQ2d 1705 (2002), and related cases.

Bentley\* shows the stacking of inductors in multiple internal layers of a printed circuit board. Bentley, which was cited by the Examiner only for its alleged suggestion of the geometric limitations of claim 57, does not show a semiconductor, nor does Bentley show a cavity extending downwardly into the surface of a semiconductor substrate. Accordingly, Bentley does not anticipate applicant's claims, which are clearly directed to a semiconductor having a semiconductor substrate and a downwardly extending cavity therein. Nor does Bentley suggest the structure of applicant's claims, as there is no teaching or suggestion in Bentley of how to create the stacked inductors of Bentley in a semiconductor substrate, which is a vastly different problem from creating stacked inductors in a printed circuit board.

For these reasons, neither Wen nor Bentley alone shows or suggests the invention of applicants' claims.

Moreover, the combination of Wen and Bentley cannot be combined to render applicants' claims obvious.

Firstly, there is no suggestion or motivation (as required by well-settled law) in either Wen or Bentley to combine one with the other. As discussed above, Wen is directed to the formation of structures in semiconductor substrates, while Bentley is directed to the formation of structures in a printed circuit board. These two problems are vastly different; one would not look to printed circuit boards in determining how to form structures in semiconductors, nor would one look to semiconductors in determining how to form structures in printed circuit boards.

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\* Applicants note that Bentley is available as a reference, if at all, only under 35 U.S.C. § 102(e). Because applicants believe, for the reasons stated herein, that Bentley neither anticipates applicants' claims, nor renders them obvious either alone or in combination with Wen, applicants are not at this time establishing an invention date (pursuant to 37 C.F.R. § 1.131 or otherwise) prior to the filing date of Bentley. However, applicants expressly reserve the right to do so in the future.

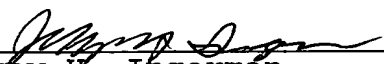
Indeed, and secondly, Wen and Bentley teach away from one another. Again as discussed above, Bentley shows the formation of multiple inductors while Wen shows the formation of a single inductor from multiple layers in conductive relationship with one another.

For these reasons, applicants respectfully submit that claims 55-58, 60, 61, 64, 65, 68 and 69 are patentable.

#### Conclusion

For the reasons set forth above, applicants respectfully submit that this application, as amended, is in condition for allowance. Moreover, at least claims 55-60, 64 and 68 remain generic to both of the species identified in the November 17, 2004 Office Action. Accordingly, claims 62, 63, 66, 67, 70 and 71, directed to the nonelected species, should be rejoined to the application. Reconsideration and prompt allowance of this application, including claims 62, 63, 66, 67, 70 and 71, are respectfully requested.

Respectfully submitted,

  
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Jeffrey H. Ingerman  
Reg. No. 31,069  
Attorney for Applicants  
FISH & NEAVE IP GROUP  
ROPES & GRAY LLP  
Customer No. 1473  
1251 Avenue of the Americas  
New York, New York 10020-1105  
Tel.: (212) 596-9000